

Algebra 411.1

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Homework 1

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Due Thursday September 22, in class.

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0. Read the book: chapter 3.

1. Problem 1. Prove that a function f from a set A to a set B has inverse function iff f is a bijection.

[We did this in class and this is also in books. You need to give your own explanation in your own words.]

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2. Do the following problems from the book: 2.8, 2.9, 2.10, 3.11.

[Remember you can ask questions in class on Tuesday.]

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*[[A group (G, \circ) is said to be *abelian* or *commutative* if for any $a, b \in G$ we have $b \circ a = a \circ b$. (For instance $(\mathbb{R}, +)$ is abelian but the symmetric groups S_n are not abelian for $n > 2$.)]]*